

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519  
CN

**KLÜBER**  
LUBRICATION

## Klüberplex BE 31-222

Version	Revision Date:	Date of last issue: 2019-11-22	Print Date:
1.8	2020-07-06	Date of first issue: 2014-11-10	2020-07-06

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Klüberplex BE 31-222  
Article-No. : 017132  
Chemical nature : Mineral oil.  
special calcium soap

#### Manufacturer or supplier's details

Company : Klüber Lubrication München  
Geisenhausenerstr. 7  
81379 München  
Deutschland  
Tel: +49 (0) 89 7876 0  
Fax: +49 (0) 89 7876 333  
info@klueber.com

E-mail address of person responsible for the SDS : mcm@klueber.com  
Material Compliance Management

National contact : Klüber Lubrication (Shanghai) Co., Ltd.  
No.88 Tuo Qing Road  
Qingpu Industrial Zone  
Shanghai 201700  
China  
Phone: +86 21 69225666  
Email: info@cn.klueber.com  
www.klueber.com.cn  
  
Klüber Lubrication China Limited  
Room 1012 Shatin Galleria  
18-24 Shan Mei Street, Fotan, Shatin, N.T.  
Hong Kong  
China  
Phone: +852 26920191  
Email: info@cn.klueber.com  
www.klueber.com.cn

Emergency telephone number : +86 532 8388 9090 (NRCC, only for hazardous chemicals)  
+86 21 69225521

#### Recommended use of the chemical and restrictions on use

Recommended use : Grease  
Restrictions on use : Restricted to professional users.

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519  
CN

**KLÜBER**  
LUBRICATION

## Klüberplex BE 31-222

Version	Revision Date:	Date of last issue: 2019-11-22	Print Date:
1.8	2020-07-06	Date of first issue: 2014-11-10	2020-07-06

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

<b>Appearance</b>	:	paste
<b>Colour</b>	:	beige
<b>Odour</b>	:	characteristic

Not a hazardous substance or mixture.

### GHS Classification

Not a hazardous substance or mixture.

### GHS label elements

Not a hazardous substance or mixture.

### Physical and chemical hazards

Not classified based on available information.

### Health hazards

Not classified based on available information.

### Environmental hazards

Not classified based on available information.

### Other hazards which do not result in classification

None known.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	>= 50 -< 70
Reaction mixture of hydrogenated tallow alkyl amines with sebacic acid and calcium hydroxide	1282612-32-1	>= 20 -< 30
2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole	59656-20-1	>= 1 -< 2.5
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	68411-46-1	>= 1 -< 2.5

## 4. FIRST AID MEASURES

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519  
CN

**KLÜBER**  
LUBRICATION

## Klüberplex BE 31-222

Version 1.8	Revision Date: 2020-07-06	Date of last issue: 2019-11-22 Date of first issue: 2014-11-10	Print Date: 2020-07-06
----------------	------------------------------	---	---------------------------

- If inhaled : Remove person to fresh air. If signs/symptoms continue, get medical attention.  
Keep patient warm and at rest.  
If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact : Remove contaminated clothing. If irritation develops, get medical attention.  
Wash off with soap and water.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.  
If eye irritation persists, consult a specialist.
- If swallowed : Move the victim to fresh air.  
Do not induce vomiting without medical advice.
- Most important symptoms and effects, both acute and delayed : No information available.  
None known.
- Notes to physician : No information available.

## 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire-fighting : Fire may cause evolution of:  
Carbon oxides  
Metal oxides  
Nitrogen oxides (NOx)  
Sulphur oxides
- Specific extinguishing methods : Standard procedure for chemical fires.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.  
Use personal protective equipment.  
Exposure to decomposition products may be a hazard to health.

## 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protection : Evacuate personnel to safe areas.

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519  
CN



## Klüberplex BE 31-222

Version	Revision Date:	Date of last issue: 2019-11-22	Print Date:
1.8	2020-07-06	Date of first issue: 2014-11-10	2020-07-06

- tive equipment and emergency procedures : Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).  
Do not breathe vapours, aerosols.  
Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Try to prevent the material from entering drains or water courses.  
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Clean up promptly by sweeping or vacuum.  
Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

### Handling

- Advice on safe handling : For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Wash hands and face before breaks and immediately after handling the product.
- Avoidance of contact : No materials to be especially mentioned.

### Storage

- Conditions for safe storage : Store in original container.  
Keep container closed when not in use.  
Keep in a dry, cool and well-ventilated place.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Store in accordance with the particular national regulations.  
Keep in properly labelled containers.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	TWA (Inhalable particulate matter)	5 mg/m <sup>3</sup>	ACGIH

- Engineering measures : none

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519  
CN

**KLÜBER**  
LUBRICATION

## Klüberplex BE 31-222

Version	Revision Date:	Date of last issue: 2019-11-22	Print Date:
1.8	2020-07-06	Date of first issue: 2014-11-10	2020-07-06

### Personal protective equipment

- Respiratory protection : Not required; except in case of aerosol formation.
- Filter type : Filter type P
- Eye/face protection : Tightly fitting safety goggles
- Hand protection
- Material : Nitrile rubber
  - Break through time : > 10 min
  - Protective index : Class 1
- Remarks : For prolonged or repeated contact use protective gloves. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case.
- Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.  
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
- Hygiene measures : Wash face, hands and any exposed skin thoroughly after handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : paste
- Colour : beige
- Odour : characteristic
- Odour Threshold : No data available
- pH : No data available
- Melting point/range : No data available
- Boiling point/boiling range : No data available
- Flash point : Not applicable
- Evaporation rate : No data available

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519  
CN

**KLÜBER**  
LUBRICATION

## Klüberplex BE 31-222

Version 1.8	Revision Date: 2020-07-06	Date of last issue: 2019-11-22 Date of first issue: 2014-11-10	Print Date: 2020-07-06
----------------	------------------------------	---	---------------------------

Flammability (solid, gas)	:	Combustible Solids
Self-ignition	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	< 0.01 hPa (20 °C)
Relative vapour density	:	No data available
Density	:	0.96 g/cm <sup>3</sup> (20 °C)
Bulk density	:	No data available
Solubility(ies)	:	
Water solubility	:	insoluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	No data available
Sublimation point	:	No data available

### 10. STABILITY AND REACTIVITY

Reactivity	:	No hazards to be specially mentioned.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use.

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519  
CN

**KLÜBER**  
LUBRICATION

## Klüberplex BE 31-222

Version 1.8	Revision Date: 2020-07-06	Date of last issue: 2019-11-22 Date of first issue: 2014-11-10	Print Date: 2020-07-06
----------------	------------------------------	---	---------------------------

Conditions to avoid : No conditions to be specially mentioned.

Incompatible materials : No materials to be especially mentioned.

Hazardous decomposition products : No decomposition if stored and applied as directed.

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

#### Product:

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Method: Calculation method

Acute inhalation toxicity : Remarks: This information is not available.

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Method: Calculation method

#### Components:

##### **Distillates (petroleum), hydrotreated heavy paraffinic:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg  
Method: OECD Test Guideline 401  
GLP: yes

Acute inhalation toxicity : LC50 (Rat): > 5.53 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg  
Method: OECD Test Guideline 402

##### **Reaction mixture of hydrogenated tallow alkyl amines with sebacic acid and calcium hydroxide:**

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: Directive 67/548/EEC, Annex V, B.1.  
GLP: yes

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 402  
GLP: yes

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519  
CN

**KLÜBER**  
LUBRICATION

## Klüberplex BE 31-222

Version	Revision Date:	Date of last issue: 2019-11-22	Print Date:
1.8	2020-07-06	Date of first issue: 2014-11-10	2020-07-06

### **2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:**

- Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg  
Method: OECD Test Guideline 401
- Acute inhalation toxicity : LC50 (Rat): > 2.75 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Method: OECD Test Guideline 403  
Assessment: The substance or mixture has no acute inhalation toxicity  
Remarks: An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.  
Information given is based on data obtained from similar substances.
- Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity  
Remarks: Information given is based on data obtained from similar substances.

### **Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

- Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg  
Method: OECD Test Guideline 401
- Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity

### **Skin corrosion/irritation**

#### **Product:**

- Remarks : This information is not available.

#### **Components:**

##### **Distillates (petroleum), hydrotreated heavy paraffinic:**

- Species : Rabbit  
Assessment : No skin irritation  
Method : OECD Test Guideline 404  
Result : No skin irritation  
GLP : yes



# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519  
CN

**KLUBER**  
LUBRICATION

## Klüberplex BE 31-222

Version	Revision Date:	Date of last issue: 2019-11-22	Print Date:
1.8	2020-07-06	Date of first issue: 2014-11-10	2020-07-06

### Reaction mixture of hydrogenated tallow alkyl amines with sebacic acid and calcium hydroxide:

Species : Rabbit  
Assessment : No skin irritation  
Method : OECD Test Guideline 404  
Result : No skin irritation  
GLP : yes

### 2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:

Species : Rabbit  
Assessment : No skin irritation  
Method : OECD Test Guideline 404  
Result : No skin irritation

### Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Species : Rabbit  
Assessment : No skin irritation  
Result : No skin irritation

### Serious eye damage/eye irritation

#### Product:

Remarks : This information is not available.

#### Components:

##### Distillates (petroleum), hydrotreated heavy paraffinic:

Species : Rabbit  
Result : No eye irritation  
Assessment : No eye irritation  
Method : OECD Test Guideline 405  
GLP : yes

### Reaction mixture of hydrogenated tallow alkyl amines with sebacic acid and calcium hydroxide:

Species : Rabbit  
Result : No eye irritation  
Assessment : No eye irritation  
Method : OECD Test Guideline 405  
GLP : yes

### 2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:

Species : Rabbit  
Result : No eye irritation  
Assessment : No eye irritation

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519  
CN

**KLÜBER**  
LUBRICATION

## Klüberplex BE 31-222

Version	Revision Date:	Date of last issue: 2019-11-22	Print Date:
1.8	2020-07-06	Date of first issue: 2014-11-10	2020-07-06

Method : OECD Test Guideline 405

### Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Species : Rabbit  
Result : No eye irritation  
Assessment : No eye irritation

### Respiratory or skin sensitisation

#### Product:

Remarks : This information is not available.

#### Components:

##### Distillates (petroleum), hydrotreated heavy paraffinic:

Species : Guinea pig  
Assessment : Does not cause skin sensitisation.  
Method : OECD Test Guideline 406  
Result : Does not cause skin sensitisation.  
GLP : yes

##### Reaction mixture of hydrogenated tallow alkyl amines with sebacic acid and calcium hydroxide:

Test Type : Maximisation Test  
Species : Guinea pig  
Assessment : Does not cause skin sensitisation.  
Method : OECD Test Guideline 406  
Result : Does not cause skin sensitisation.  
GLP : yes

##### 2,5-bis(tert-dodecylthio)-1,3,4-thiadiazole:

Test Type : Buehler Test  
Species : Guinea pig  
Assessment : Did not cause sensitisation on laboratory animals.  
Method : OECD Test Guideline 406  
Result : Did not cause sensitisation on laboratory animals.

##### Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Species : Guinea pig  
Assessment : Does not cause skin sensitisation.  
Method : OECD Test Guideline 406  
Result : Does not cause skin sensitisation.

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519  
CN

**KLÜBER**  
LUBRICATION

## Klüberplex BE 31-222

Version	Revision Date:	Date of last issue: 2019-11-22	Print Date:
1.8	2020-07-06	Date of first issue: 2014-11-10	2020-07-06

### Germ cell mutagenicity

#### Product:

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

#### Components:

#### **Reaction mixture of hydrogenated tallow alkyl amines with sebacic acid and calcium hydroxide:**

Genotoxicity in vitro : Test Type: Ames test  
Method: Mutagenicity (Escherichia coli - reverse mutation assay)  
Result: negative  
GLP: yes

#### **2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test  
Test system: Chinese hamster fibroblasts  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 473  
Result: negative  
Remarks: Information given is based on data obtained from similar substances.

Germ cell mutagenicity - Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

### Carcinogenicity

#### Product:

Remarks : No data available

#### Components:

#### **Distillates (petroleum), hydrotreated heavy paraffinic:**

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

#### **2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:**

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519  
CN

**KLÜBER**  
LUBRICATION

## Klüberplex BE 31-222

Version 1.8	Revision Date: 2020-07-06	Date of last issue: 2019-11-22 Date of first issue: 2014-11-10	Print Date: 2020-07-06
----------------	------------------------------	---	---------------------------

### Reproductive toxicity

#### Product:

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

#### Components:

##### **Distillates (petroleum), hydrotreated heavy paraffinic:**

Reproductive toxicity - Assessment : No toxicity to reproduction

##### **2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:**

Effects on fertility : Species: Rat  
Application Route: Oral  
General Toxicity - Parent: NOAEL: 1,000 mg/kg body weight  
General Toxicity F1: NOAEL: 1,000 mg/kg body weight  
Method: OECD Test Guideline 421  
Remarks: Information given is based on data obtained from similar substances.

Reproductive toxicity - Assessment : No toxicity to reproduction  
Animal testing did not show any effects on foetal development.

### STOT - single exposure

#### Components:

##### **2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

### STOT - repeated exposure

#### Components:

##### **2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

### Repeated dose toxicity

#### Product:

Remarks : This information is not available.

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519  
CN

**KLÜBER**  
LUBRICATION

## Klüberplex BE 31-222

Version	Revision Date:	Date of last issue: 2019-11-22	Print Date:
1.8	2020-07-06	Date of first issue: 2014-11-10	2020-07-06

### Components:

#### 2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:

Species : Rat  
NOAEL : 250 mg/kg  
Application Route : Oral  
Method : OECD Test Guideline 421  
Remarks : Information given is based on data obtained from similar substances.

### Aspiration toxicity

#### Product:

This information is not available.

### Components:

#### Distillates (petroleum), hydrotreated heavy paraffinic:

No aspiration toxicity classification

### Further information

#### Product:

Remarks : Information given is based on data on the components and the toxicology of similar products.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Product:

Toxicity to fish :  
Remarks: No data available

Toxicity to daphnia and other :  
aquatic invertebrates : Remarks: No data available

Toxicity to algae :  
Remarks: No data available

Toxicity to microorganisms : Remarks: No data available

### Components:

#### Distillates (petroleum), hydrotreated heavy paraffinic:

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519  
CN

**KLÜBER**  
LUBRICATION

## Klüberplex BE 31-222

Version	Revision Date:	Date of last issue: 2019-11-22	Print Date:
1.8	2020-07-06	Date of first issue: 2014-11-10	2020-07-06

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203  
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l  
Exposure time: 48 h  
Test Type: Immobilization  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 10 mg/l  
Exposure time: 21 d  
Test Type: semi-static test  
Method: OECD Test Guideline 211  
GLP: yes

### Reaction mixture of hydrogenated tallow alkyl amines with sebacic acid and calcium hydroxide:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203  
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h  
Test Type: Immobilization  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l  
Exposure time: 72 h  
Test Type: Growth inhibition  
Method: OECD Test Guideline 201  
GLP: yes

### 2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 41 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519  
CN

**KLÜBER**  
LUBRICATION

## Klüberplex BE 31-222

Version	Revision Date:	Date of last issue: 2019-11-22	Print Date:
1.8	2020-07-06	Date of first issue: 2014-11-10	2020-07-06

Exposure time: 72 h  
Test Type: Growth inhibition  
Method: OECD Test Guideline 201

### Ecotoxicology Assessment

Acute aquatic toxicity : Harmful to aquatic life.  
Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

### Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 51 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l  
Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201

Toxicity to microorganisms : EC50 (activated sludge): > 100 mg/l  
Exposure time: 3 h  
Test Type: Respiration inhibition  
Method: OECD Test Guideline 209

### Ecotoxicology Assessment

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

### Persistence and degradability

#### Product:

Biodegradability : Remarks: No data available  
Physico-chemical removability : Remarks: No data available

#### Components:

#### Distillates (petroleum), hydrotreated heavy paraffinic:

Biodegradability : aerobic

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519  
CN

**KLÜBER**  
LUBRICATION

## Klüberplex BE 31-222

Version	Revision Date:	Date of last issue: 2019-11-22	Print Date:
1.8	2020-07-06	Date of first issue: 2014-11-10	2020-07-06

Inoculum: activated sludge  
Result: Not rapidly biodegradable  
Biodegradation: 3 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B  
GLP: yes

### Reaction mixture of hydrogenated tallow alkyl amines with sebacic acid and calcium hydroxide:

Biodegradability : Primary biodegradation  
Inoculum: activated sludge  
Result: Not rapidly biodegradable  
Biodegradation: 26.1 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F  
GLP: yes

### 2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:

Biodegradability : Primary biodegradation  
Inoculum: activated sludge  
Result: Not readily biodegradable.  
Biodegradation: 0 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301C

### Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Biodegradability : aerobic  
Inoculum: activated sludge  
Result: Not rapidly biodegradable  
Biodegradation: 1 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B  
GLP: yes

### Bioaccumulative potential

#### Product:

Bioaccumulation : Remarks: This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).  
This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

#### Components:

#### Distillates (petroleum), hydrotreated heavy paraffinic:

Partition coefficient: n- : log Pow: > 2



# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519  
CN

**KLÜBER**  
LUBRICATION

## Klüberplex BE 31-222

Version	Revision Date:	Date of last issue: 2019-11-22	Print Date:
1.8	2020-07-06	Date of first issue: 2014-11-10	2020-07-06

octanol/water

### Reaction mixture of hydrogenated tallow alkyl amines with sebacic acid and calcium hydroxide:

Partition coefficient: n-octanol/water : log Pow: 0.9 - 18

### 2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:

Bioaccumulation : Species: Fish  
Bioconcentration factor (BCF): 3.16

Partition coefficient: n-octanol/water : log Pow: 8 (20 °C)

### Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Bioaccumulation : Bioconcentration factor (BCF): 1,730

Partition coefficient: n-octanol/water : log Pow: 6.66 (23 °C)  
pH: 6.67  
Method: OECD Test Guideline 123  
GLP: yes

### Mobility in soil

#### Product:

Mobility : Remarks: No data available

Distribution among environmental compartments : Remarks: No data available

### Other adverse effects

#### Product:

Additional ecological information : No information on ecology is available.

### Components:

#### Distillates (petroleum), hydrotreated heavy paraffinic:

Results of PBT and vPvB assessment : Non-classified vPvB substance Non-classified PBT substance

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519  
CN

**KLÜBER**  
LUBRICATION

## Klüberplex BE 31-222

Version	Revision Date:	Date of last issue: 2019-11-22	Print Date:
1.8	2020-07-06	Date of first issue: 2014-11-10	2020-07-06

### 13. DISPOSAL CONSIDERATIONS

#### Disposal methods

- Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
- Contaminated packaging : Packaging that is not properly emptied must be disposed of as the unused product.  
Dispose of waste product or used containers according to local regulations.

### 14. TRANSPORT INFORMATION

#### International Regulations

##### UNRTDG

Not regulated as a dangerous good

##### IATA-DGR

Not regulated as a dangerous good

##### IMDG-Code

Not regulated as a dangerous good

#### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

#### National Regulations

##### GB 6944/12268

Not regulated as a dangerous good

#### Special precautions for user

Not applicable

### 15. REGULATORY INFORMATION

#### National regulatory information

##### Law on the Prevention and Control of Occupational Diseases

##### Regulations on Safety Management of Hazardous Chemicals

Catalogue of Hazardous Chemicals : Not applicable

Hazardous Chemicals for Priority Management under SAWS : Not applicable

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519  
CN

**KLUBER**  
LUBRICATION

## Klüberplex BE 31-222

Version	Revision Date:	Date of last issue: 2019-11-22	Print Date:
1.8	2020-07-06	Date of first issue: 2014-11-10	2020-07-06

### Regulations on Labour Protection in Workplaces where Toxic Substances are Used

Catalogue of Highly Toxic Chemicals : Not applicable

### Regulation of Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

China Severely Restricted Toxic Chemicals for Import and Export : Not applicable

### The components of this product are reported in the following inventories:

IECSC : On the inventory, or in compliance with the inventory

## 16. OTHER INFORMATION

Date format : yyyy/mm/dd

### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

ACGIH / TWA : 8-hour, time-weighted average

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Develop-

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519  
CN

**KLÜBER**  
LUBRICATION

## Klüberplex BE 31-222

Version	Revision Date:	Date of last issue: 2019-11-22	Print Date:
1.8	2020-07-06	Date of first issue: 2014-11-10	2020-07-06

ment; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

### Disclaimer

This safety data sheet applies only to products as originally packed and labelled. The information contained therein may not be reproduced or modified without our express written permission. Any forwarding of this document is only permitted to the extent required by law. Any further, in particular public, dissemination of the safety data sheet (e.g. as a document for download from the Internet) is not permitted without our express written consent. We provide our customers with amended safety data sheets as prescribed by law. The customer is responsible for passing on safety data sheets and any amendments contained therein to its own customers, employees and other users of the product. We provide no guarantee that safety data sheets received by users from third parties are up-to-date. All information and instructions in this safety data sheet have been compiled to the best of our knowledge and are based on the information available to us on the day of publication. The information provided is intended to describe the product in relation to the required safety measures; it is neither an assurance of characteristics nor a guarantee of the product's suitability for particular applications and does not justify any contractual legal relationship. The existence of a safety data sheet for a particular jurisdiction does not necessarily mean that import or use within that jurisdiction is legally permitted. If you have any questions, please contact your responsible sales contact or authorized trading partner.